COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled LOW OXYGEN AFFINITY MUTANT HEMOGLOBINS, the specification of which

	Regular A	Application	
is attached hereto.			
was filed on June 21	, 2000 as Application Serial No.	. 09/598,218.	
	PCT Application En	tering National Phase	
was filed on [Date] applicable).	as PCT International Application	on No. [App. No.] and was amende	ed on [Date of Amendment] (if
I hereby state that I have revie amended by any amendment refe		ts of the above-identified specific	cation, including the claims, as
I acknowledge the duty to disclos § 1.56(a).	se information which is material t	to patentability as defined in Title 3	37, Code of Federal Regulations,
I hereby claim foreign priority b inventor's certificate listed below filing date before that of the appl	and have also identified below	ates Code, § 119(a)-(d) of any for any foreign application for patent and.	reign application(s) for patent or or inventor's certificate having a
Prior Foreign Application(s)			Priority Claimed
1			Yes No
(Number)	(Country)	(Day/Month/Year Filed)	
I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.			
(Application Number)	(Filing Date)		
I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.			
	1		

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Frederick H. Colen, Reg. No. 28,061; W. Scott Railton, Reg. No. 23,039; Gene A. Tabachnick, Reg. No. 33,801; Paul D. Bangor, Jr., Reg. No. 34,768; Maria N. Rullo, Reg. No. 37,433; Kirsten R. Rydstrom; Reg. No. 38,603; Barry J. Coyne Reg. No. 43,566; Cheryl L. Gastineau, Reg. No. 39,469, Ian K. Samways, Reg. No. 36,664; Charles H. Dougherty, Jr., Reg. No. 42,494; Robert D. Kucler, Reg. No. 45,908; Louis M. Heidelberger, Reg. No. 27,899; John W. Goldschmidt, Jr., Reg. No. 34,828; Daniel H. Golub, Reg. No. 33,701; William J. McNichol, Jr., Reg. No. 31,179; R. Anthony Diehl, Reg. No. 38,432; Marc J. Farrell, Reg. No. 37,826; Thomas J. McWilliams, Reg. No. 44,930; Matthew J. Esserman, Reg. No. 41,536; Maryellen Feehery, Reg. No. P-44,677; Alison B. Weisberg, Reg. No. P-45,206; Nanda Kumar, Reg. No. P-44,853; Mary E. Buckles, Reg. No. 31,907; Juan C. Marquez, Reg. No. 34,072; Stanley P. Fisher, Reg. No. 24,344 and Terri J. Latonik, Reg. No. 36,577.

Address all telephone calls to Mary-Elizabeth Buckles at telephone number (202) 414-9267

Address all correspondence to:

Mary-Elizabeth Buckles

REED SMITH SHAW & MCCLAY LLP

1301 K Street, N.W. Suite 1100-East Tower Washington, DC 20005-3317

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's Signature

Full name of sole or first inventor

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United States of America

2034 Garrick Drive, Pittsburgh, PA 15235 USA

Inventor's Signature

Full name of second inventor

Residence Citizenship

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Inventor's Signature

Full name of third inventor

Residence Citizenship

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Inventor's Signature

Full name of fourth inventor

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5615 Forbes Avenue, Pittsburgh, PA 15217 USA

REED SMITH SHAW & MCCLAY LLP

1301 K Street, N.W., Suite 1100-East Tower Washington, DC 20005-3317 Ph: 202-414-9200

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Chien Ho, et. al.	
Serial No.: 09/598,218	
Filed: June 21, 2000	

LOW OXYGEN AFFINITY MUTANT HEMOGLOBINS

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) and 1.27(d)) - NONPROFIT ORGANIZATION

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

NAME OF ORG	ANIZATION: Carnegie Melion University
Address Of C	ORGANIZATION: 5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213
\boxtimes	University Or Other Institution Of Higher Education
	TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c)(3))
	NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF
	STATE OF THE UNITED STATES OF AMERICA
	(NAME OF STATE: [State])
	(CITATION OF STATUTE: [Cite])
	Would Qualify As Tax Exempt Under Internal Revenue Service Code (26 USC $501(a)$ and $501(c)(3)$) If Located In The United States Of America
	WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA
	(NAME OF STATE: [State])
	(CITATION OF STATUTE: [Cite])

1.28(b))

	I hereby declare that the nonprofit organization identified above qualifies as a nonprofit
organization	as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title
35, United S	tates Code with regard to the invention entitled LOW OXYGEN AFFINITY MUTANT
HEMOGLO	DBINS by inventors Chien Ho, Ching-Hsuan Tsai, Tsuei-Yun Fang and Tong-Jian Shen described in
	the specification filed herewith
	Application Serial No. 09/598,218, filed June 21, 2000.
	Patent No. [No.], issued [Date].
	I hereby declare that the rights under contract or law have been conveyed to and remain with the
nonprofit orga	inization with regard to the above identified invention.
	If the rights held by the nonprofit organization are not exclusive, each individual, concern or
organization h	aving rights to the invention is listed below* and no rights to the invention are held by any person,
other than the	inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern
which would n	ot qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR
1.9(e).	
*NOTE:	Separate verified statements are required from each named person, concern or organization
	having rights to the invention averring to their status as small entities (37 CFR 1.27)
Name:	
ADDRESS:	
☐ Individuai	SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
Name:	
Address:	
☐ INDIVIDUAI	SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
Name:	
ADDRESS:	
	L SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
	I acknowledge the duty to file, in this application or patent, notification of any change in status
resulting in los	as of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue
-	ntenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR
	· · · · · · · · · · · · · · · · · · ·

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING:

Susan Burkett

TITLE IN ORGANIZATION:

Associate Provost

ADDRESS OF PERSON SIGNING:

Carnegie Mellon University

5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213

SIGNATURE

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	7
Chien Ho, et. al.	
Serial No.: 09/598,218	LOW HEMO
Filed: June 21, 2000	
	 J

LOW OXYGEN AFFINITY MUTANT HEMOGLOBINS

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) and 1.27(d)) - NONPROFIT ORGANIZATION

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Address Of C	ORGANIZATION:	5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213
\boxtimes	University Or C	OTHER INSTITUTION OF HIGHER EDUCATION
	TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c)(3))	
	NONPROFIT SCIEN	ITIFIC OR EDUCATIONAL UNDER STATUTE OF
	STATE OF THE UN	ITED STATES OF AMERICA
	(NAME OF STATE	: [State])
	(CITATION OF STA	ATUTE: [Cite])
	-	As Tax Exempt Under Internal Revenue Service Code and $501(c)(3)$ If Located in The United States Of America
	_	As Nonprofit Scientific Or Educational Under Statute United States Of America If Located In The United ICA
	(NAME OF STATE	: [State])
	(CITATION OF ST.	ATUTE: [Cite])

1.28(b))

	I hereby declare that the nonprofit organization identified above qualifies as a nonprofit
organization as	defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title
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HEMOGLOB	INS by inventors Chien Ho, Ching-Hsuan Tsai, Tsuei-Yun Fang and Tong-Jian Shen described in
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	Application Serial No. 09/598,218, filed June 21, 2000.
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other than the inv	ventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern
which would not	qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR
1.9(e).	
*NOTE:	Separate verified statements are required from each named person, concern or organization
	having rights to the invention averring to their status as small entities (37 CFR 1.27)
Name:	
ADDRESS:	
☐ INDIVIDUAL [SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
NAME:	
ADDRESS:	
☐ INDIVIDUAL [SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
Nаме:	
ADDRESS:	
☐ INDIVIDUAL (SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION
	I acknowledge the duty to file, in this application or patent, notification of any change in status
resulting in loss	of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue
fee or any mainte	enance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING:

Susan Burkett

TITLE IN ORGANIZATION:

Associate Provost

ADDRESS OF PERSON SIGNING:

Carnegie Mellon University

ausst DATE 7/17/00

5000 Forbes Avenue, Warner Hall, 4th Floor, Pittsburgh, PA 15213

SIGNATURE